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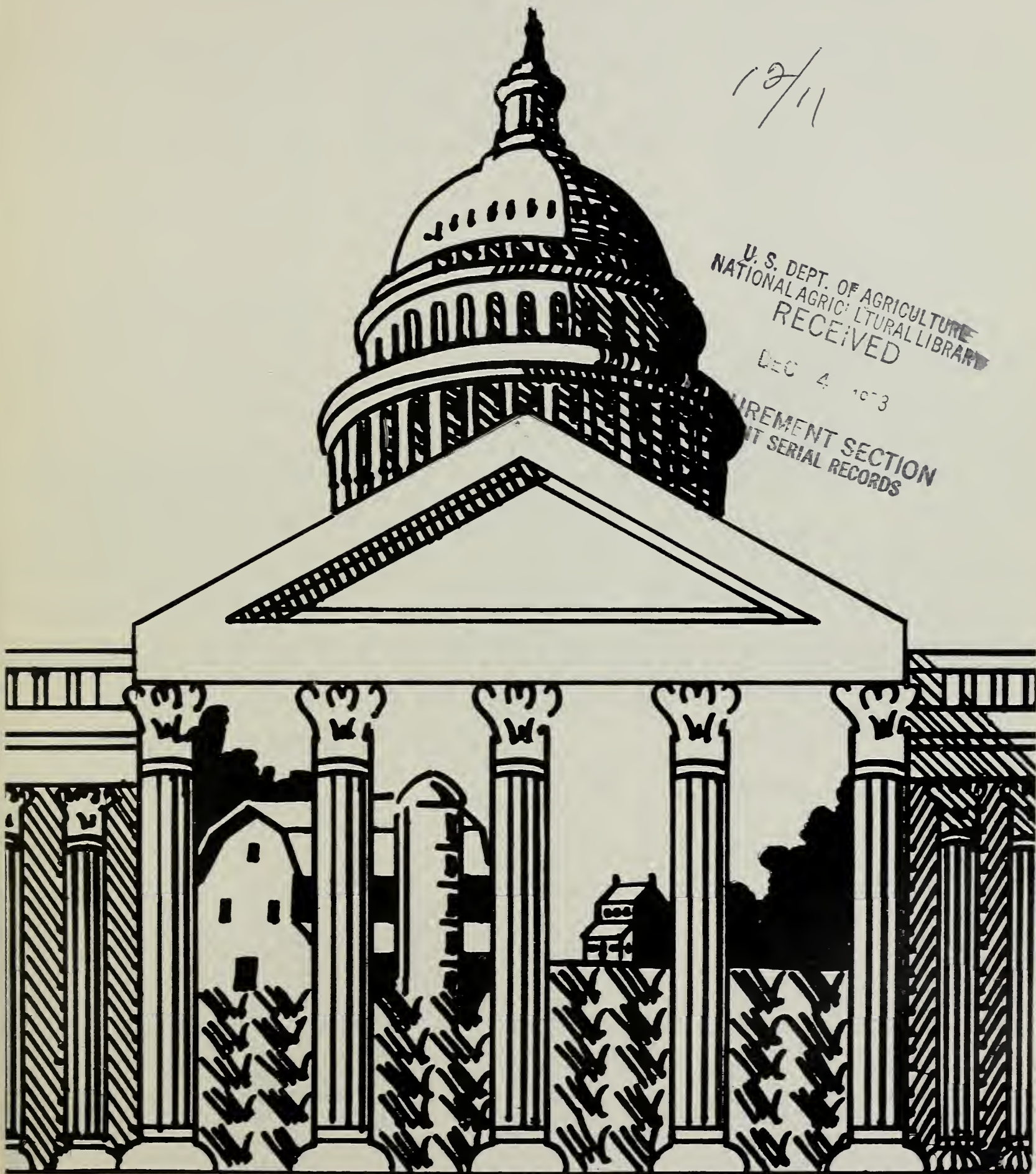
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THE FARM INDEX

U.S. Department of Agriculture / November 1973

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The New Farm Act

Outlook

Highlights from ERS's "Agricultural Supply and Demand Estimates" released in mid-October—

Wheat. Export estimate for 1973/74 has been lifted 50 million bushels from September indications to 1,150 million. For 1974/75, domestic use estimate has been shaved—by about 35 million bushels to 755 million—reflecting a tight supply situation in prospect for early in the season, continuation of strong prices, and a big 1973 grain sorghum crop. The 1974/75 export projection has been reduced slightly below 1 billion bushels in view of the likelihood of increased worldwide production resulting from good growing conditions in most areas.

Rice. Estimate of the 1973 rice crop, while still 12 percent above 1972, has been lowered 3 percent to 95.5 million hundredweight due mainly to damages from tropical storm Delia. Indicated production would about match expected utilization, keeping carryover stocks next summer near this August's very low level.

Soybeans. Prospects for soybean exports in 1973/74 have been cut 50 million bushels to 550 million for reasons of—Western Europe's unfavorable crushing margins and reduced soybean meal use; improved sunflower crops predicted for Eastern Europe; stiffer competition expected next spring from peanut meal from India and soybeans from Brazil; and smaller-than-anticipated shipments of U.S. soybeans to the U.S.S.R.

Flaxseed and linseed oil. Supplies in 1973/74 are barely enough to fill U.S. requirements, and next June's carry-over will be at a minimum level. Flaxseed plantings in 1974 have been projected at 2 million acres, up 20 percent, and production at over 23 million bushels assuming yields return to normal.

Upland cotton. October crop forecast indicates the largest crop since 1965—more than 13 million 480-pound bales, up almost 200,000 from the September estimate. Prospective carry-levels and above last fall.

4 million bales of August 1, 1973.

Milk. Production in the 1973/74 marketing year is seen nearly 4 percent less than in 1972/73. Blame is put to high feed prices, which are cutting feeding rates and milk output per cow, and to attractive slaughter cow prices that are encouraging culling. Too, many farmers are quitting dairying altogether. USDA net purchases of dairy products under the price support program have dropped sharply. None are likely through the rest of the marketing year.

Beef production in the first half of 1974 will dip . . . then bounce back up.

January-March output of fed beef is expected to drop about 8-10 percent from this fall's level and around 4-6 percent from a year earlier. April-June supplies, however, could be 10-15 percent over the low slaughter of this past spring and as much as 10 percent above winter's output.

Prices this fall could average near the mid-October levels of \$41.50 per 100 pounds for Choice steers at Omaha. In the first quarter of next year, prices will rise as marketings drop below the rates of this fall and a year earlier. By spring, however, prices should weaken with a recovery in marketings.

Record high feed prices coupled with the confusion in livestock markets of recent months have put a damper on expansion of hog produc-

tion. ERS reports that this fall's pork supplies may approach year-ago levels and will be up from summer's output. Hog slaughter in the first half of 1974 is expected to be about unchanged from the first half of 1973. Reason is that next spring's slaughter will mainly come from farrowings during September-November 1973, and they're now indicated to be the same as a year ago.

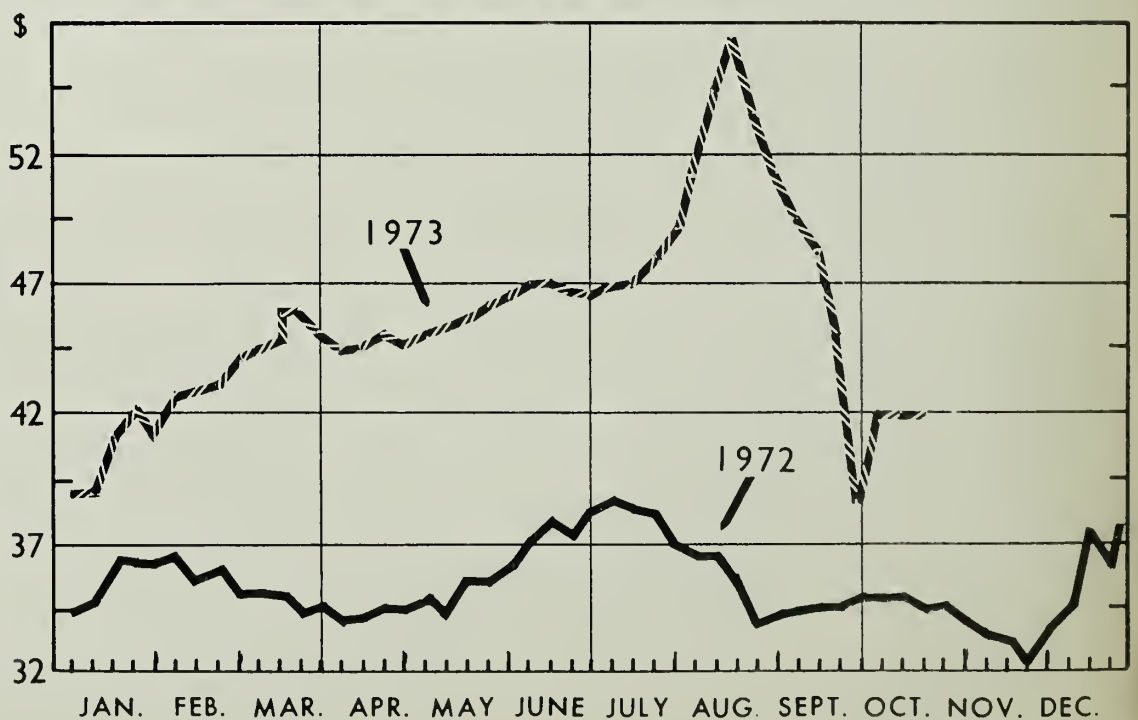
Lack of expansion shows producers' reluctance to increase the number of sows bred at a time of high feed prices, price controls, and iffy market conditions.

Pricewise, it's likely that hog markets will strengthen in the first quarter of 1974. Pork supplies will be about the same as in January-March 1973, and competing beef supplies will be smaller. But by late spring there's a chance hog prices will slip with a substantial pickup in beef production accompanied by lower cattle prices.

A sharp cutback in the supply of feeder lambs portends a further sag in lamb slaughter next spring and summer. Through September, commercial sheep and lamb slaughter trailed the 1972 rate by about 6 percent. Slaughter in the fourth quarter will approximate this summer's but will stay below a year earlier.

Prices of Choice slaughter lambs are expected to continue near current levels and above last fall.

CHOICE STEERS — OMAHA



The Farm Index

Red meat consumption for 1973 is now figured at 178 pounds per person—6 percent less than last year and the least since 1967. The per capita projections by meat type with 1972 figures in parentheses: beef 111 pounds (116); pork 62 (67.4); veal 1.8 (2.2); and lamb and mutton 2.8 (3.3).

Retail prices for red meats can be expected to back off in the months ahead. Basis for the forecast is the bulge in pork and beef supplies this fall along with lower prices for slaughter livestock. As retail prices ease, price relationships among the various cuts of meat will probably return to more normal spreads.

Prices for fresh vegetables will keep on the high side this fall and winter, reflecting continued strong demand. But prices will be under those of the first half of 1973, as supplies were seasonally large in the third quarter.

Contrary to earlier expectations, processed vegetable supplies for the new marketing season are likely to be only slightly more plentiful than in 1972. Carryovers of canned vegetables were the smallest in years, and frozen vegetable stocks were also light. As a result, the industry planted 10 percent more acres to the eight leading processing vegetables. But tomato production, accounting for roughly half of the processed vegetable tonnage, was only 4 percent above a year ago despite a 14-percent increase in acreage. This gives a total processing vegetable crop of 10 million tons for seven important crops, 6 percent more than in 1972.

Retail prices of processed vegetables are apt to ascend more steeply in the new season than in the one just past. Price restrictions imposed by the Cost of Living Council have made processed vegetables unusually good bargains. This has stimulated disappearance in 1973. In the new season, processors have been granted more liberal provisions to pass on increased operating costs. Heavy consumer demand combined with tight supplies will also exert upward pressure on prices.

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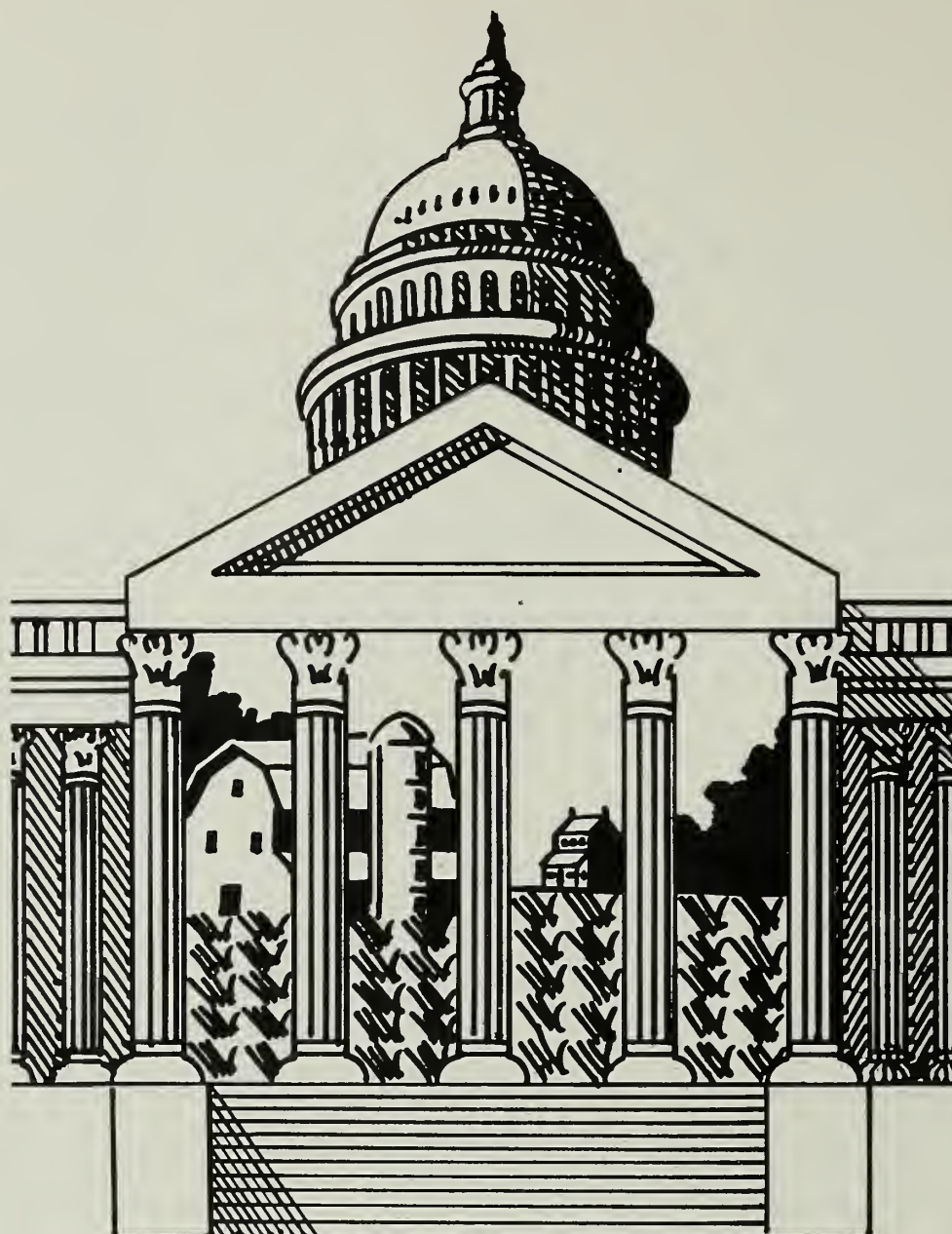
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The New Farm Act

Under the new farm act, which sets national farm policy for the next 4 years, a "target price" concept is introduced for wheat, feed grain, and cotton crops.

The 1973 farm bill signed into law in August makes a number of important changes in agricultural legislation . . . including the introduction of the "target price" principle for wheat, feed grains, and cotton.

The new law—the Agriculture and Consumer Protection Act of 1973—is a 4-year bill and starts with the 1974 crops. It replaces the Agricultural Act of 1970 which expires

as of December 31, 1973.

Under the new act, participating farmers are provided with two forms of price protection for their grain and cotton crops:

—target prices for normal production on allotted acres

—nonrecourse loans for all production

The target—or guaranteed—prices have already been set by Congress for 1974 and 1975: wheat, \$2.05 a bushel; corn, \$1.38 a bushel; and cotton, 38 cents a pound. These prices apply only to the producer's normal production on his allotted acres.

In addition, a target price escalator provision applies to the 1976 and

1977 crops. For 1976, target prices will be the 1975 target price adjusted for changes in farm costs and modified for changes in yield per acre. A similar adjustment will be made in 1977 based on the 1976 target price.

Provides price floor. The nonrecourse loan rate, on the other hand, covers all of a farmer's production and thus provides a floor on the price of grain or cotton for farmers who participate in the program. The 1973 act raises this loan rate to \$1.37 per bushel for wheat, the minimum permitted under law, \$1.10 for corn, and a preliminary rate of 25.26 cents a pound for cotton in 1974.

What this means is that farmers can put their crops into storage and use them as collateral for a Government loan. Farmers may later repay the loan and redeem their crops for farm use or resale in the marketplace. If the market price is below the loan rate, the farmer may choose to give the Government title to the stored grain and keep the loan.

Assures farmers. Farmers are thus assured that should excessive production drastically force down prices, the Government would assist in maintaining farm income—through target prices and the nonrecourse loan rate.

How does it all work?

The Secretary of Agriculture determines each year the total acreage for wheat, feed grains, and cotton to meet domestic and export needs, plus any desired adjustment in stocks.

Assigns acreage. From this, a producer in the program is assigned an acreage allotment sufficient to produce his share of the estimated requirements. He is guaranteed target prices for the normal output from this allotment. He is free to plant the rest of his acreage any way he wants, although the additional production is not covered by the target price.

Farmers would receive Government payments only if the U.S. average market price for the first 5 months of the year falls below the target price.

The farmer then is paid the difference between the target price and the market price . . . or the difference between the nonrecourse loan rate and the market price, whichever would result in the smaller payment.

Thus, if the market price drops to \$1.50 per bushel of wheat, a producer with normal production of 10,000 bushels on his allotted acreage would receive \$5,500 (10,000 bushels times the difference between the target price of \$2.05 and the market price of \$1.50). Had the market price fallen below the loan rate of \$1.37, the producer would have been paid the difference between the target and loan rate.

The payment is based not on a farmer's actual yield but on a normal yield based on the national yield adjusted to reflect the productivity of individual farms.

Crop insurance. The program, because of this yield factor, also serves as a form of crop insurance. Should some natural disaster prevent a farmer from planting or cause his harvest to be less than two-thirds of the normal yield for his allotted acreage, he would still be paid based on the normal yield. Payments would equal at least one-third of the target price.

To be eligible for full payments, farmers must plant at least 90 percent of their allotments. However, a number of other crops may be substituted for the program crop.

While overproduction is not the problem now, the act gives the Secretary several options for limiting production if year-end stocks are projected to be above desirable levels.

This production adjustment authority is similar to that in the Agricultural Act of 1970. The Secretary may require participating farmers to set aside—or leave idle—part of their cropland; he may give farmers the opportunity for a voluntary set-aside; or he may require that acreages of specified crops be limited to a percentage of allotments.

The Secretary also is given the authority to release set-aside acreage for hay or grazing for the production of livestock.

Lowers payment limit. Also new in the act is a further restriction on total payments to an individual. The Agricultural Act of 1970 limited payments to \$55,000 per person for each of the wheat, feed grain, or cotton programs. The 1973 act limits payments to \$20,000 per person from all three programs.

However, the act defines a "person," including corporations for the purposes of determining payments, more liberally than the Secretary defined a person for the 1972 and 1973 programs.

For example, for 1973, payments to a corporation in which an in-

Also in the Act

The new farm act—in addition to assuring farmers of adequate incomes from some of their major crops—authorizes and directs USDA to carry out a number of other programs. These include—

Price support for dairy products. The new act raises the dairy support level 5 percent, to 80 percent of parity, for the rest of the current marketing year and for the next one which begins April 1, 1974.

Income support for wool producers

Extension of P.L. 480 to provide for sales of farm products to developing countries

Continuation of indemnities for dairymen and beekeepers

Raising the limit on some loans by Farmers Home Administration

Additional authorization for rural development, including a new rural environmental conservation program

Changes in, and an extension of, the Food Stamp Program through June 30, 1977

Use of public funds to buy for distribution to welfare organizations commodities that normally were obtained from surplus stocks.

In addition, it directs the Department to—

Develop national estimates of total costs of producing wheat, feed grain, cotton, and dairy commodities

Study the causes of livestock losses during shipping

Conduct research to reduce use of fertilizer and herbicides in wheat and feed grain production

Study the effects of dairy imports on domestic producers, processors, handlers, and consumers

Provide technical assistance to exporters of farm products and monitor contracts for such exports

Provide disaster reserves of wheat, feed grains, and soybeans and have the final word on price ceilings for farm products.

And, finally, the act directs the Secretary of Commerce to conduct an agricultural census in 1974.

dividual had more than a 20-percent interest were included in computing that person's payment subject to the limit. The 1973 act, applying to 1974-77, specifies that a producer may have up to 50-percent interest in a corporation without his share of any payments to the corporation being added to his payment limit as an individual.

Excluded from the limitation are loans, purchases to support prices, or payments which the Secretary determines to be compensation for resource adjustment. Thus, if set-aside is required of participants, payments can exceed \$20,000 by the amount determined to be payment for holding land out of production.

For the coming year, here are some of the specifics on the new farm programs—

WHEAT. For the purpose of payments only, acreage allotments have been set at 55 million acres for 1974. If wheat producers participate in the program to the full extent of their allotments they will be assured of at least the target price of \$2.05 a bushel for nearly 1.8 billion bushels of wheat.

The act repealed, as of July 1, the 75-cents-a-bushel wheat certificate required of processors that began with the 1966 program. This had the immediate effect of reducing the price of wheat to millers by 75 cents a bushel and reduces the cost of producing a 1-pound loaf of bread by a little less than 1 cent.

FEED GRAINS. For 1974, the Secretary has set a large allotment—89 million acres, or about 68 percent of the current feed grain base. Sixty-two million acres are for corn for grain; 17 million acres for sorghum grain; and 10 million acres for barley. As noted earlier, corn's target price is \$1.38 a bushel, for sorghum, \$1.31 a bushel, and for barley, \$1.13. Production in excess of allotments is supported at the nonrecourse loan rate of \$1.10 a bushel for corn, \$1.05 for sorghum, and 90 cents for barley.

Although not eligible for target price payments, oats will be supported at 54 cents a bushel and rye at 89 cents through nonrecourse

loans under the program.

COTTON. Allotments were established for 1974 at the legal minimum of 11 million acres. The target price is 38 cents a pound.

While the announced support—or nonrecourse loan—rate is 25.26 cents a pound, this is preliminary and could be lowered if the world price for American cotton is below this level on August 1, 1974. The act sets the minimum loan rate for cotton at 90 percent of the previous 3-year average price of American cotton in world markets unless the market price at the beginning of the marketing season is lower.

[Based on special material by James Vermeer, Commodity Economics Division.]

1972 Was Best in Decade For S.W. Cattle Ranchers

For Southwest cattle ranchers, 1972 will go down as an exceptionally good year.

Net income per ranch (return to operator and family labor, management, and capital) shot up past \$25,000—more than double the 1964-72 average. The sudden spurt, according to an ERS study, resulted from a combination of favorable range conditions and recordbreaking prices in livestock markets.

The study, the last of a series, examined the organization, costs, and returns on Southwest cattle ranches from 1964-72. As defined in the report, the Southwest ranching area encompasses the southeast corner of Arizona, southern New Mexico, and western Texas.

Ranchers in the Southwest derive most of their income from sales of calves to feedlot operators in Texas, Oklahoma, Colorado, and New Mexico. Herd size averages 390 to 400 head of cattle per ranch. Of these, about 300 are brood cows and heifers.

Investments per brood cow climbed steadily during 1964-72, with total investment per cow reaching a record \$2,000 in 1972—more than two-thirds higher than the 1964 figure.

Investment per ranch on a 400-

head operation with 300 brood cows now stands at over \$500,000. Biggest item is real estate. For each dollar invested in cattle, Southwest cow-calf ranchers have \$5 to \$6 invested in land and range improvements.

Since 1965, ranching costs have mounted at a steady clip, with the index of prices paid by Southwest ranchers advancing 28 percent. Labor costs led the list, topping \$5,500 last year—compared with just over \$3,100 in 1964.

In 1972, ranchers paid an average of \$3,000 to operate vehicles and machinery—including gasoline, oil, tires, and repairs—up 26 percent from 1964. Livestock replacement costs also spiraled upward. The price of bulls, for example, surged 44 percent during the 9-year span. And property taxes advanced at roughly the same rate.

Other expenditures were mostly for utilities needed in operating the ranches. Of these, insurance—including coverage on buildings and machinery—claimed the largest share. Insurance costs climbed 66 percent during 1964-1972.

Total costs of producing feeder cattle in 1972 amounted to \$55.24 per hundredweight. This was about the same as a year earlier, but 50 percent greater than in 1965-67.

Capital appreciation has proven a major factor in improving the financial position of Southwestern cattle ranchers. With ranches using vast amounts of land, a slight jump in land values produces a giant leap in the total value of ranch assets.

Annual appreciation per ranch ranged from \$5,400 in 1964 to \$57,000 last year. Over the 9-year period, appreciation per ranch averaged out to \$32,000 per year—roughly three times the average net income during 1964-72. Nevertheless, the ranchers faced a difficult cash flow problem over the period due to rising operating expenses.

[Based on manuscript entitled Organization, Costs, and Returns, Southwest Cattle Ranches, 1964-72, by James R. Gray, New Mexico State University, Wylie D. Goodsell and Macie J. Belfield, Commodity Economics Division.]

Farm Debt-to-Asset Ratio Makes First Downturn Since 1957

Assets of the Nation's farm sector mounted faster than its debts in 1972—indicating a strengthening of the financial position of farmers as a group.

Reporting in their annual publication *The Balance Sheet of the Farming Sector*, ERS analysts said the debt-to-asset ratio dipped from 19.6 percent on January 1, 1972, to 19.2 percent on the same date in 1973. This marked the first downturn in the ratio since 1957.

Farm liabilities at the start of 1973 totaled a record \$73.6 billion—up \$6.7 billion or 10 percent from a year ago. On the other side of the balance sheet, the value of assets posted a gain of 12.5 percent, rising by \$42.4 billion to \$383.5 billion at the start of 1973—also a new high.

Equity owned by farm proprietors advanced \$35.7 billion in 1972, or 13 percent, bringing total equity on January 1, 1973, to \$309.9 billion.

Most of the expansion in farm assets is credited to a sizable leap in farm real estate value, which generally accounts for about two-thirds of all farm assets. Farm real estate value at the beginning of 1973 totaled \$258.7 billion—up a record \$28.2 billion or 12.2 percent. Value of farmland per acre averaged \$247, a rise of \$31.

Value of livestock and poultry, at \$34.2 billion January 1, 1973, ad-

vanced \$7 billion or 26 percent. Although cattle and calf numbers rose slightly, practically all the increase resulted from sharp increases in value per head. Cattle averaged \$252 per head (up \$44); hogs \$41.90 (up \$13.40); sheep \$26.70 (\$3.80); chickens \$1.28 (\$0.05); and turkeys \$6.53 (\$0.30).

Value of farm machinery and motor vehicles rose \$3 billion to \$39 billion, despite a drop in total numbers. Higher values of the newer and more powerful items more than offset the loss in value of obsolete and depreciated stock.

Farmer-owned crop inventories at the beginning of 1973 were valued at \$14.1 billion, a fifth above a year earlier. Most of the increase came from higher prices.

Financial assets, at \$26.5 billion, registered a \$1.6 billion gain, sparked by an unusually large jump of \$0.6 billion in bank time deposits and a \$0.5 billion rise in net worth of farmer cooperatives. Liquid assets—including deposits and currency and U.S. savings bonds—totaled \$17.9 billion, \$1.1 billion more than a year earlier and the largest year-to-year increase on record. Record high farm income of \$19.6 billion accounted for most of this growth.

Turning to the debt situation, non-real estate farm loans (excluding CCC loans) surged a record \$4

billion to reach \$37.3 billion outstanding on January 1, 1973. Contributing factors included bigger machinery and livestock purchases along with higher prices paid for these and other farm inputs.

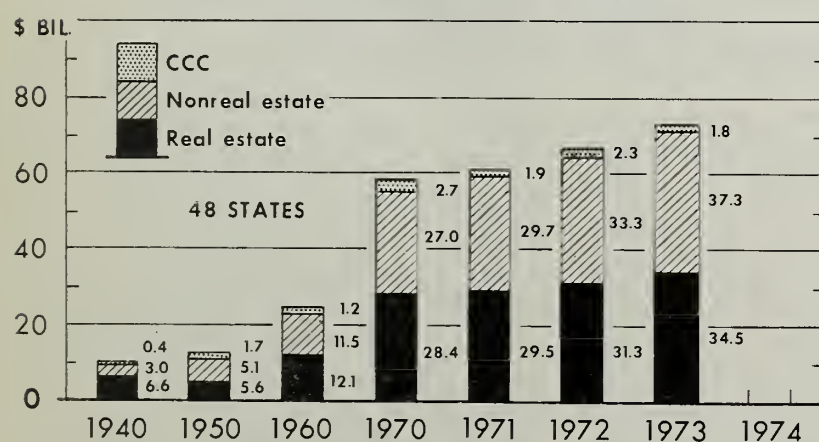
Farm real estate debt climbed \$3.2 billion to \$34.5 billion, reflecting larger supplies of loan funds, a willingness of lenders to make loans, lower interest rates, and general optimism among farmers about the agricultural outlook.

The total volume of farm mortgages recorded during 1972, at \$9.3 billion, was \$2.5 billion higher than a year earlier.

All lender groups increased farm mortgage lending in 1972. Commercial banks, Federal land banks, and individuals all increased about 45 percent. Recordings by the Farmers Home Administration were less because of FHA's program of shifting from a direct loan program to insured loans. Mortgages recorded by the life insurance companies rose 60 percent. Their volume of loans in 1971 was unusually low, hence the percentage increase in 1972 was larger than for other lenders.

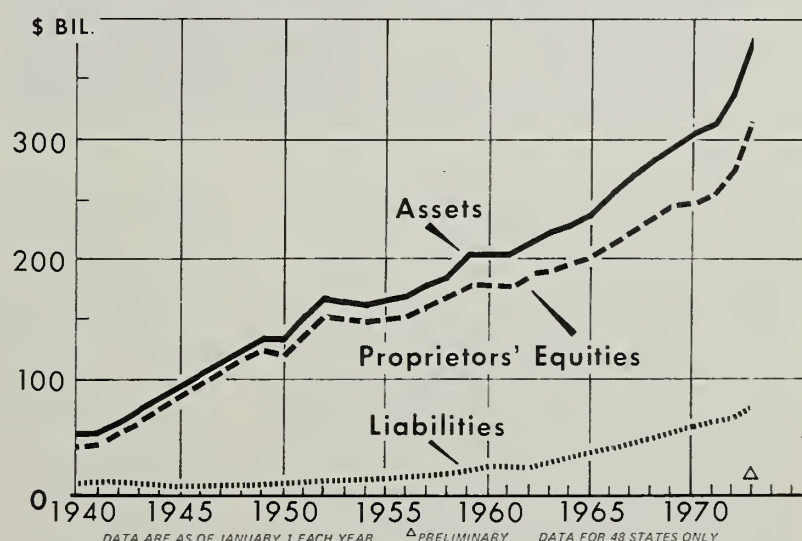
[Based on *The Balance Sheet of the Farming Sector*, 1973, AIB-365, by Carson D. Evans, Forest G. Warren, Robert D. Reinsel, and Richard W. Simunek, National Economic Analysis Division.]

**FARM DEBT,
LOANS OUTSTANDING JANUARY 1**



1973 PRELIMINARY.

BALANCE SHEET OF FARMING SECTOR



DATA ARE AS OF JANUARY 1 EACH YEAR Δ PRELIMINARY DATA FOR 48 STATES ONLY

Ban on Antibiotics Would Add Millions To Livestock Costs

Several hundred million dollars could be added to the tab for raising cattle and hogs in the event of a ban on subtherapeutic feeding of antibiotics to livestock. The effects of a ban would also be felt by consumers if livestock growers were to pass the higher production costs along the marketing chain.

These were among the conclusions of a recent study by ERS in cooperation with Texas A & M University and North Carolina State University.

Subtherapeutic feeding is the use of low levels of antibiotics in livestock rations to improve feed conversion and promote faster, more uniform growth. These feed additives, however, may present a potential hazard to human health and might conceivably be prohibited in the foreseeable future.

Antibiotics in feeds have come under question because of increasing evidence that prolonged exposure to some antibiotics triggers growth of bacteria which are resistant to the same or different antibiotics. Thus, minute traces of antibiotics in meat products from animals fed with antibiotics could theoretically promote the development in the human body of disease-producing bacteria which are resistant to antibiotics.

In assessing the economic impact of a possible ban on the antibiotics, the ERS economists assumed producers would adjust to the situation in one of three ways: (A) feeding the same number of animals as before the ban but feeding them for longer periods to maintain output; (B) feeding greater numbers of animals than previously, again to maintain output; and (C) feeding the same number of animals as before the ban and for the same feeding periods, resulting in reduced livestock output.

The likely economic consequences of these adjustments include—

Under (A), feeding for longer pe-

riods, combined production costs for cattle and hogs would rise by an estimated \$372 million—for cattle, by \$0.45 per 100 pounds liveweight; for hogs, by \$0.97 per 100 pounds. This assumes no change in mortality rates from pre-ban levels.

If the total cost increase were passed on to consumers, annual meat expenditures would increase by about \$1.83 per person.

Total quantity of feed used would go up by 3.4 million tons, of which 2.9 million would be feed grains. This is the equivalent of 103 million bushels of corn, or the production from about 1.3 million acres of corn.

Under (B), producing more animals to compensate for lighter marketing weights, production costs would rise by \$476 million. This also assumes no change in mortality rates and that additional feeder animals could be acquired without affecting feeder prices. The higher costs for cattle and calves would amount to \$0.54 per 100 pounds, and to \$1.32 for hogs.

If all the increase were borne by consumers, annual meat expenditures would have to advance by \$2.35 per person in order to maintain consumption at pre-ban levels.

Feed use would increase by 2.1 million tons. Of this, 1.7 million tons would be feed grains in corn equivalent, representing 0.7 million acres of corn.

Under situation (C), no change in animals fed or in feeding periods, annual production of cattle and calves would drop by 2.05 percent of the pre-ban output, assuming mortality rates are not affected by the ban. Hog output would decline 9.43 percent.

Meat consumption would fall because of the reduced output. On a dressed weight basis, 8.45 pounds less beef, veal, and pork would be available per capita. The smaller meat supplies would result in an increase in consumer expenditures for beef, veal, and pork of \$1.6 billion annually, or about \$8 per person.

Livestock producers would get greater net returns in this situation,

if there were no changes in present demand relationships. Combined net revenues of beef cattle, veal, calf, and hog producers could increase by as much as \$1.9 billion a year.

Much of the higher net returns would come from higher prices and larger sales receipts, along with an estimated saving in feed costs of \$288 million.

The economists emphasize that the hypothetical situations in this study were examined independently. Actual adjustments by producers would probably involve some combination of the three situations.

[Based on manuscript *Economic Consequences of Banning the Use of Antibiotics at Subtherapeutic Levels in Livestock Production*, by Henry Gilliam, J. Rod Martin, William G. Bursch, and Richard B. Smith, Commodity Economics Division.]

Net Income Per Farm Jumps a Third in 1972

You might call it an aberration, but the Nation's top-ranking State in realized net income per farm took a \$4,000 plunge in 1972.

While the national average climbed nearly a third, from \$5,233 to \$6,856, top-ranking Arizona dropped from \$32,141 per farm to \$28,185.

A substantial jump in farm production expenses—particularly for feed and cattle—was the main cause for Arizona's drop. The State's high national ranking is a result of its many large farms relative to the total.

Florida moved up to second spot, with a realized net income per farm of \$20,691. It switched places with Hawaii, which ranked fourth with a 1972 income of \$19,581. California stayed No. 3, with 1972's income at \$20,506.

Other leading States were Nevada, \$18,890; Delaware, \$14,165; Wyoming, \$13,121; Montana, \$13,105; Iowa, \$10,969; and Kansas, \$10,756.

[Based on *Farm Income State Estimates, 1959-72*, FIS-222 (Supplement), August 1973, by National Economic Analysis Division.]

CITY- BOUND INDIANS



With the probable exception of the Eskimo and the Aleut, the American Indian is the only group left in the U.S. that's predominantly rural . . . and that hold is tenuous.

By 1980, our urbanization will probably be "complete."

The last holdout—the American Indians—will have succumbed.

Along with the Eskimos and Aleuts, they're the only racial or

ethnic group left in the U.S. that still lives predominantly in rural areas.

And that's changing fast. The 1960 Census showed more than 7 out of 10 American Indians lived in rural areas. The 1970 Census moved this down to little more than 5 out of 10. By the 1980 Census, there's little doubt how things will stack up.

The 1970 Census indicates there are some 800,000 Indians in the U.S.

—a 50-percent jump from a decade earlier. But that comparison can't be taken at face value.

USDA's Rural Development Service (RDS) points out that the extensive use of self-enumeration in 1970 probably gave an improved count of Indians over the 1960 Census. In addition, an increased consciousness of being Indian probably induced more people of mixed descent to list themselves as Indian. Thus, RDS

estimates that only about three-fourths of the 269,000 population increase represents an increase of births over deaths.

Nationwide, Los Angeles has the largest Indian population of any urban area, with 28,000, of whom more than 9,000 live in the city proper. Los Angeles has been especially attractive to the Navajo and other southwestern tribes and to the Cherokee.

Many of the cities with the highest Indian populations—like Los Angeles—are nowhere near major reservations.

New York, for instance, has an Indian population of 11,700 in the metropolitan area and is a major destination of the Mohawk. Baltimore has attracted the Lumbee of North Carolina. The San Francisco-Oakland area has an Indian population of 11,600; Chicago 8,700; Seattle 7,800; Dallas-Ft. Worth 6,100; and Detroit 5,500.

Among those cities with sizable Indian populations and located near present or former reservations, Oklahoma City has 10,900; Tulsa 9,800; Minneapolis-St. Paul, which is a major destination of the Chippewa and Sioux, 9,600; and Phoenix 8,000.

Part of this nationwide migration to urban areas has had the impetus of planned relocation programs . . . part has developed naturally over time.

It's likely that the influence of reservations—most of which are rural in character and location—will insure that more Indians will continue to live in rural areas than would otherwise be the case. A number of reservations and surrounding areas show substantial population gains, and several counties in the Dakotas have acquired Indian majorities in the last decade.

The rural population tends to be young, with a high natural population increase. Present migration patterns indicate that there will be enough rural population retention for significant local growth, plus enough outmigration to put a majority of Indians in urban areas by the start of the next decade.

Much of this migration has been directly to the urban fringe, rather than to the central city. Only about 3 out of 5 urban Indians live in the central city, in contrast to urban blacks, who are super-concentrated—about 84 percent—in central cities.

Regionally, the heaviest Indian migration from a rural area has been from the upper Midwest, where more than half those reaching the age of 20 in the 1960's seem to have left. On the other hand, in Washington and Oregon, only a sixth of the young adults have left.

[Based on speech by Calvin L. Beale, Rural Development Service, to the annual meeting of the American Agricultural Economics Association, Edmonton, Canada, August 1973, entitled "Migration Patterns of Minorities in the United States."]

Colorado Study Shows Rural Land Losses

A liking for the wide open spaces is leading to less rural land in Colorado.

"People who migrate to Colorado do so with the expectation of living in the wide open spaces . . . Even the manufacturing plants and regional offices tend to locate on spacious grounds in rural areas," writes an ERS economist in a recent study on the impact of urbanization on rural lands in a three-county area in Colorado.

"Thus, the greatest impact will be on rural lands, with some increase in the intensity of use of existing urban lands."

Using aerial photographs, the economist determined that some 15,000 acres of rural land—23 square miles—had been urbanized since the mid-1950's in Boulder, Weld, and Larimer counties in northern Colorado.

Projecting to 1990, he estimates another 17,000 to 51,000 rural acres could be urbanized.

In looking at land use changes from 1955 to 1969, he found that most of the land going out of rural use was irrigated cropland—nearly 7,000 acres. Grassland, at 4,000 acres,

was next, followed by non-irrigated cropland and idle land.

Most of the land—nearly 10,000 acres—has gone into residential development. About two-thirds of this has been for dense residential use, and the rest for more open development.

Land for more open development increased sharply from 1963 to 1969 due to the rise of rural-domestic water districts and associations that piped domestic water into the countryside in the Front Range region of the Rockies.

Until the early 1960's, developments in more open rural areas had to build their own water systems or rely on trucked water that was then stored in cisterns.

The three-county area has had a considerable surge in subdivision development in anticipation of population growth. Some 330 rural subdivisions were recorded between 1960 and 1972, totaling 13,500 lots on 16,800 acres.

As of the spring of this year, about 9,000 of these lots—with 10,500 acres—were vacant.

Depending on how fast development occurs, these 9,000 lots appear to be sufficient for 2½ to 4 more years.

Development may be slowed down by rapidly rising building costs, land costs, interest rates, and hookup and service fees for water and sewer.

Of all the development, mobile home or trailer parks—while occupying only about 400 acres of rural lands—have the highest population density of any of the urban uses on rural lands.

The population of the study area overall has about doubled from 1949 to 1969 and is expected to about double again—to 634,000—by 1990.

Total urbanized area—close to 50,000 acres in 1972—is expected to range from 72,000 acres to nearly 126,000 by 1990.

[Based on *Urbanization of Rural Lands in the Northern Colorado Front Range* by Raymond L. Anderson, Natural Resource Economics Division, in cooperation with Colorado State University Cooperative Extension Service.]

Land Development Aids Finances, Not Environment, In County of Islands

Economic growth or environmental quality? The two mix only with effort and careful long-term planning.

A case in point is Washington's San Juan County, where USDA's Rural Development Service recently assessed the social and economic impact of an unregulated land market.

San Juan is made up of 172 small islands accessible from the mainland only by boat. About four-fifths of the county's 111,877 acres are on the three largest islands. And only 40 islands contain more than 10 acres.

Agriculture, forestry, and fishing once formed the mainstay of the county's economy. But the sale of forest products had plunged from \$79,000 in 1949 to less than \$3,000 by 1969. Most island residents who are still in farming supplement their incomes with outside employment. At last count, only five men remained full-time farmers.

Over the past few decades, the islands' agricultural economy has given way to an economy based almost entirely on residential and recreational uses of land and water. This fact is reflected in its population, which has hovered near 3,500 since the 1920's but swells to an estimated 23,000 during the summer.

By the end of 1968, long-term residents had disposed of some 3,200 acres, or 78 percent of their land. Nine of every 10 acres went to people outside their families. The sales, transacted mostly between 1959 and 1968, were generally prompted by a particular need for the proceeds or because owners wished to retire.

In the coming decade, newly subdivided land, particularly waterfront property no longer in the hands of local residents, will account for most land sales to speculators, developers and ultimately to families seeking second homes and recreation sites.

While longtime residents who sold land during 1959-68 improved their

financial positions, some 85 percent were unhappy with other changes that followed the shift in the county's economy.

Residents complained that bulldozers and subdivisions had marred the natural beauty of their land and that the influx of seasonal and full-time residents had robbed them of privacy while contributing to vandalism and litter.

Thus while development of land has provided San Juan County a base for economic development—a growth in service industries, for example—it hasn't proven an unqualified success. But for the short run, rising per capita incomes and increasing leisure time will up the demand for recreation land and economic growth will continue.

[Based on *The Land Market and Economic Development, A Case Study of San Juan County, Washington*, by Donald J. Cocheba, Central Washington State College; Ralph A. Loomis, Rural Development Service; and Eldon E. Weeks, National Economic Analysis Division. Washington Agr. Expt. Sta. Bull. 773.]

Anniversary Issue

Last year marked the 50th anniversary of agricultural economic research in the Federal Government. The milestone is observed in *A Half Century of Economic Research*, a series of articles newly reprinted from *The Farm Index*.

A Half Century of Economic Research chronicles the rise of USDA's Economic Research Service from the old Bureau of Agricultural Economics, formed when farm prices dipped near an all-time low following World War II.

Besides the title article, others in the series include "People and Progress," profiles of some of the pioneers of agricultural economics; "Economics: Cornerstone of Policy"; "Economists on the Foreign Front"; "Economists in an Urban Age"; and "Looking In on the Outlook Board."

For a copy of *A Half Century of Economic Research*, write The Farm Index, ERS, U.S. Department of Agriculture, Rm. 1459 So., Washington, D.C. 20250.

Most of Hail Losses Borne by Three Crops

When hail strikes the farm belt, odds are that three crops will bear the brunt of the economic losses: corn, wheat, and soybeans. They account for over half the annual losses from hail damage.

As part of a study to determine the impact of hail suppression projects on land resources, ERS examined crop production data and crop insurance loss records for the 1948-70 period. They found that 20 crops accounted for the majority of the crop hail loss in the U.S. Hail loss averaged \$400 million in 1966-70. Wheat's share was 25 percent; corn's, 18 percent; and soybeans', 13 percent. Next were cotton (11 percent), tobacco (10 percent), and grain sorghum (4 percent).

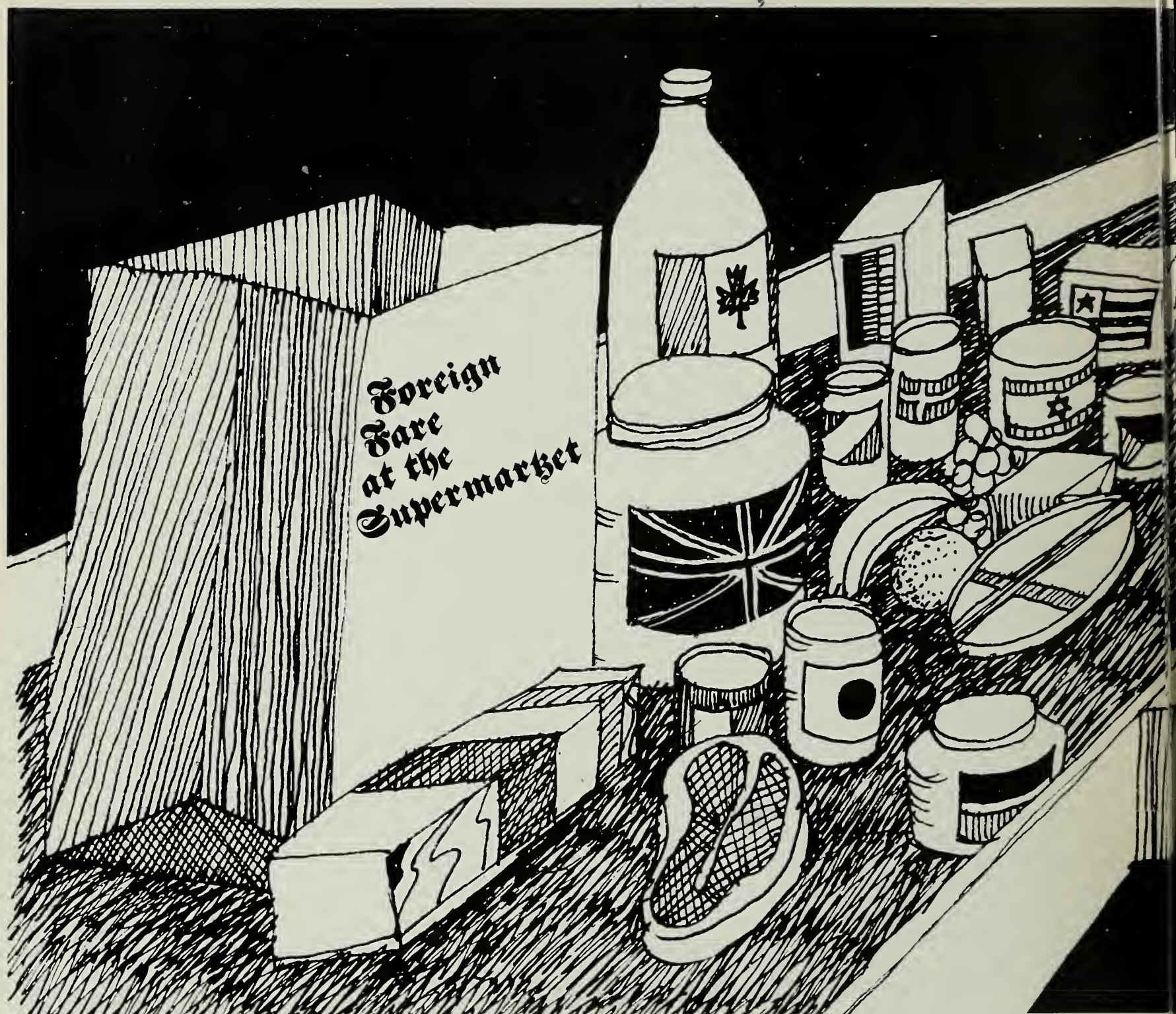
Together, these six crops accounted for about four-fifths of total hail damage to the 20 major crops. More than 70 percent of the total estimated loss occurred in 23 States devoted to the production of the six crops. Total land area involved was 122 million acres, or roughly a third of all cropland in the U.S.

In the breakdown of annual crop losses by States, Texas led with \$51 million, followed by Iowa, \$40 million; Nebraska, \$36 million; Minnesota, \$29 million; and Kansas, \$27 million.

Seven other States had losses of \$10 million or more. They were Colorado, Illinois, Montana, North Carolina, North Dakota, Oklahoma, and South Dakota. On the low end, three States had total annual estimated losses of under \$100,000—Rhode Island, New Hampshire, and Vermont.

Biggest loss for a single crop was Texas' cotton—\$29 million.

[Based on paper by Larry M. Boone and David L. Langemeier, Natural Resource Economics Division, entitled "Where Hail Damage to Crops is Highest—Some Implications for Planning Hail Suppression," presented at Interagency Conference on Weather Modification, Estes Park, Colo., September 1973.]



Everything from fresh fruits and vegetables to pickled pimientos at the supermarket reflects the fact we're second on'y to West Germany in agricultural imports.

Most of our grocery lists wouldn't be complete without a little foreign fare.

Bananas . . . black pepper . . . Roquefort cheese . . . even such everyday items as fresh pears, apples, and tomatoes, depending on the season.

Not long ago, for instance, our

domestic supplies of fresh pears were way down. But Australia had had a bumper crop in 1972, and moved in to become our leading supplier. Imports of pears doubled for 1972/73 from the year before.

When domestic apple supplies fell on the short side earlier this year, Australia and New Zealand found the U.S. an attractive market.

All told, our import bill for agricultural commodities came to \$7.3 billion for 1972/73, a fifth above 1971/72. Most of the value increase

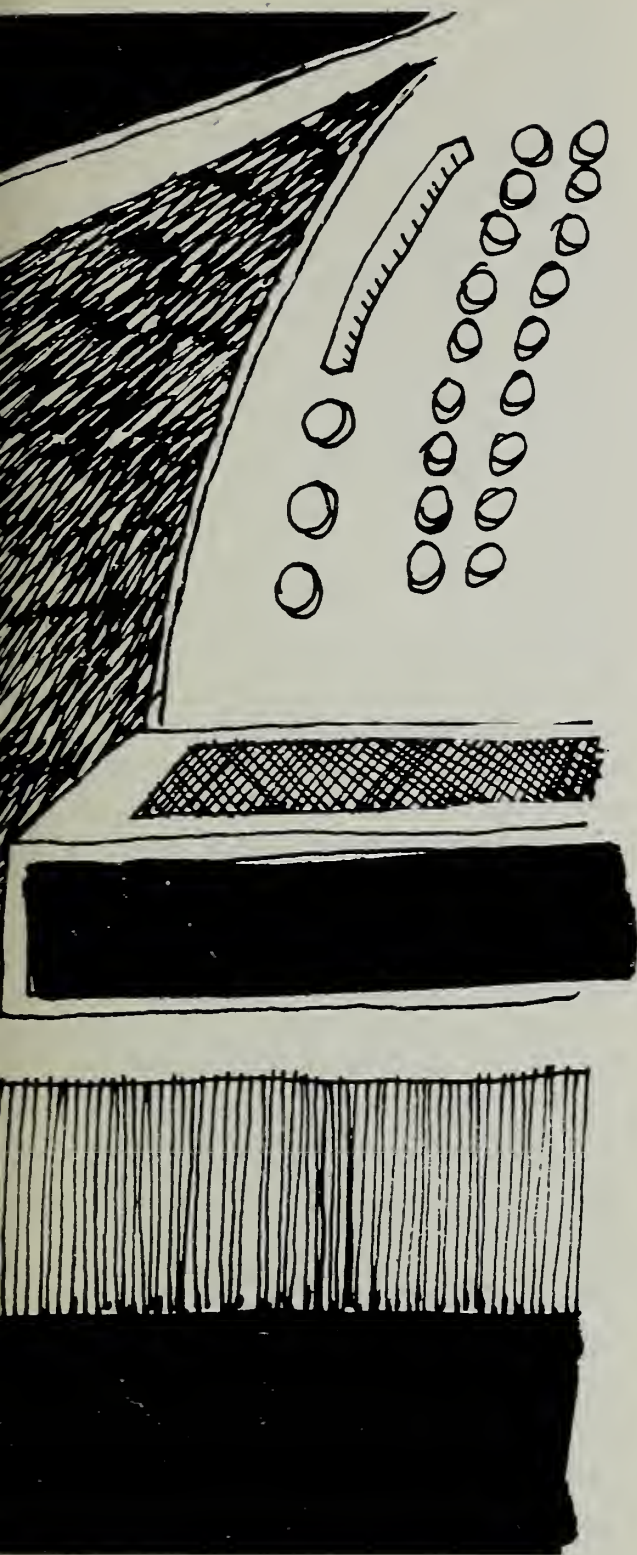
stemmed from higher prices.

During this same period, Mexico moved ahead of Brazil to become the principal supplier of agricultural products to the U.S.—shipping more than \$700 million worth in 1972/73.

New import records were set this past fiscal year for meat, dairy products, fruits, vegetables, nuts, wines, and bananas.

And of this \$7.3 billion worth of imports, a good portion winds up at the grocery store.

Meat—the biggest item in the



food budget—set a new import record this year at 2 billion pounds. This was an 8-percent increase in volume from 1971/72, and a 24-percent rise in value to nearly \$1.4 billion.

Fresh-chilled or frozen beef was up 15 percent in volume to nearly 1.4 billion pounds, and value was up 35 percent to \$865 million. Most of this meat goes into manufactured products like hamburgers and frozen TV dinners. Principal suppliers include Australia, New Zealand, and

Central American countries.

Argentina is a big supplier of canned corned beef, and Denmark, the Netherlands, and Poland are our main import source for canned hams and shoulders, which make up nearly four-fifths of our pork imports.

Most of our coffee is imported as green beans, and this past fiscal year volume exceeded 3 million pounds, the largest since fiscal 1966. Value climbed to \$1.5 billion, the highest since fiscal 1954. Both soluble and roasted or ground coffee imports broke previous records. Brazil and Colombia are the two leading suppliers, although more than 30 other countries in Latin America and Africa export coffee to the U.S.

Fruit and vegetable imports were up nearly a fourth in 1972/73, totaling \$615 million. Vegetables accounted for about two-thirds, with top "sellers" of cucumbers, eggplant, garlic, onions, peppers, squash, tomatoes, olives, and canned mushrooms. Fruit imports, at \$206 million, were up primarily because of more imports of apples, pears, berries, grapefruit, oranges, raisins, and grape juice.

Tomato is tops. Fresh tomatoes—by far the most important imported vegetable—set a new record in the first 6 months of 1973. Nearly 700 million pounds, or roughly 3½ pounds per person, entered from Mexico during that time, up from 543 million pounds the same period in 1972. Imports now account for about a fourth of the fresh tomatoes consumed each year in the U.S.

Imports of other fresh vegetables also made sizable increases in 1973.

Onion imports, mostly from Mexico, reached 127 million pounds in the first 6 months compared with 46 million pounds a year earlier. Mexican shipments usually peak in March and fill the gap between old and new domestic crops. The volume imported is usually determined by the timing of the early spring Texas crop and the domestic storage supplies.

Out of onions. This year, we actually ran out of onions, and the more than 100 million pounds from Mexico were

not enough to fill the gap.

Cucumber and pepper imports were also substantially larger this season from Mexico. Cantaloups—which by March and April are almost all from Mexico—and watermelons were imported at about the same rate the first 6 months of this year as last and accounted for about three-quarters of a pound per person. We eat a total of about 22 pounds of watermelon and cantaloup per person a year.

Fresh and frozen strawberries were up considerably this year, mostly from Mexico. During the first 6 months of the year, about 32 million pounds of fresh strawberries arrived and 87.5 million pounds of frozen—almost a third more than year-earlier levels.

Choice cheeses. Most dairy product imports are under quota, with the main exception, high-quality cheeses. Close to 200 million pounds of cheese, valued at nearly \$120 million, were imported in 1972/73. Swiss cheese, blue mold, Edam, Gouda, and Italian-type cheeses like Romano, Reggiano, and Parmesano were key imports.

With import value nearly a fifth more than a year ago, nuts—led by Brazils, cashews, and pistachio nuts—made a strong showing. Total value reached nearly \$134 million.

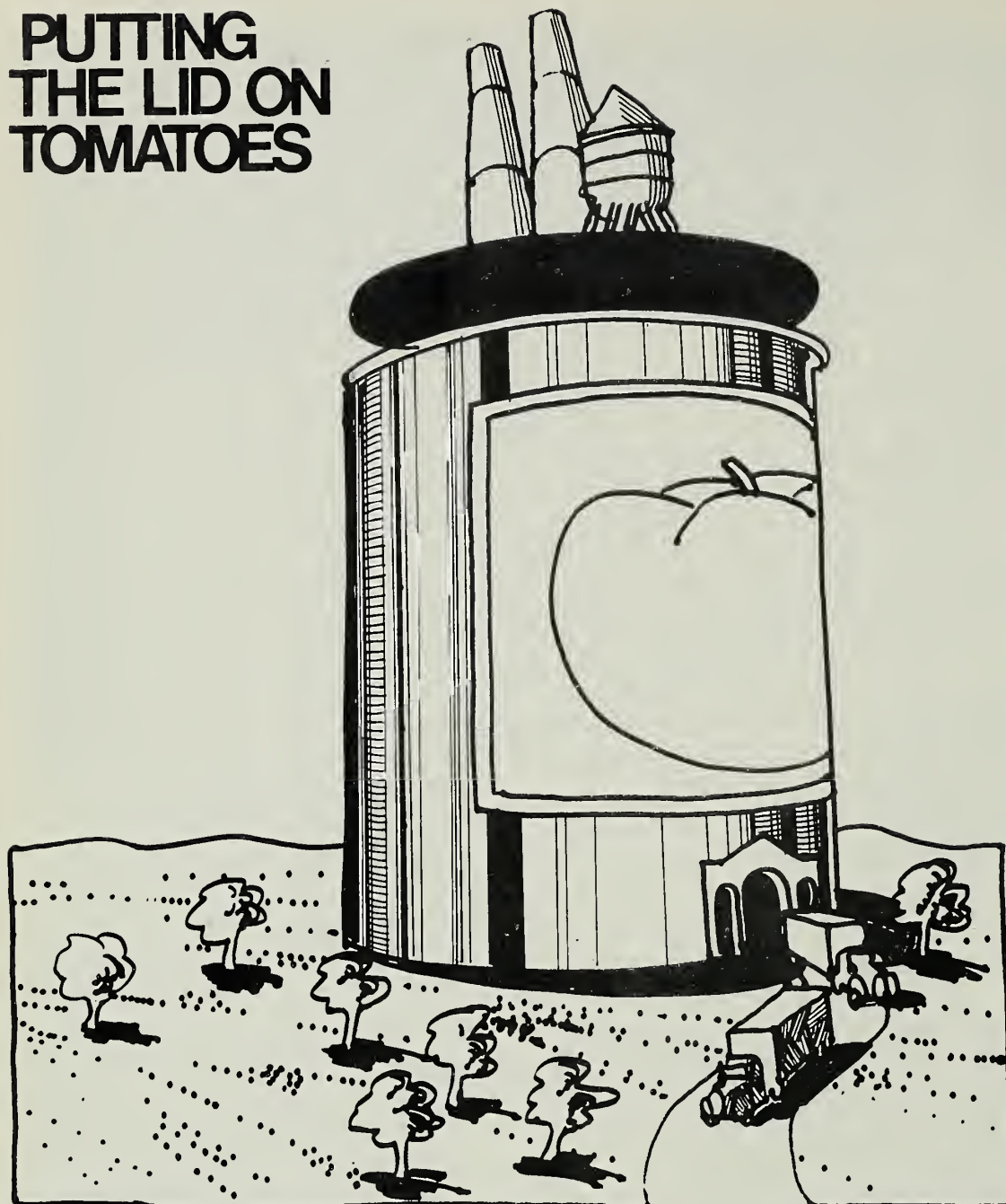
Table wine imports jumped 38 percent this past fiscal year to 43 million gallons. Import value was up 48 percent to \$190 million. Portugal, Spain, and Italy accounted for most of the increased volume.

And while the U.S. is the world's largest producer and exporter of tobacco, it is also the third largest importer. U.S. cigarettes contain about 16 percent imported tobacco; cigars, about 60 percent.

All told, the U.S. is second only to West Germany as the largest importer of agricultural products. On a per capita basis, however, imports are substantially less than in most other developed countries.

[Based on *Foreign Agricultural Trade of the United States*, August 1973; *U.S. Foreign Agricultural Trade Statistical Report*, 1972; and *Vegetable Situation*, TVS-190, October 1973.]

PUTTING THE LID ON TOMATOES



Our stepped-up demand for tomato products—especially such concentrated ones as catsup and paste—has made a dramatic impact on the industry during the past 25 years.

Never underestimate the power of a tomato.

Not only has it been the best-selling of all processed fruits and vegetables over the years, but it's becoming more so, riding on the crest of demand for quick foods that make abundant use of such items as catsup, tomato sauce, or paste.

Since the late 1940's, growers have had to more than double production to meet the demand for proc-

essing tomatoes. Imports of processed tomatoes are way up, particularly from Italy, Spain, and Portugal. And a switch to more concentrated tomato products has played a big role in California's taking over as the Nation's No. 1 producer and processor of canned tomato products.

The average American now consumes about 20 pounds of processed tomatoes a year in such forms as juice, canned tomatoes, paste, puree, and sauce. He eats, by contrast, 12 pounds of fresh tomatoes.

Close to four-fifths of the processed crop comes from California. Of the other two major processing centers, the Midwest accounts for 14

percent of the processed crop, and the East, 6 percent.

Just about all of California's rapid growth in the past 20 years has come at the expense of the East. From 1948-50 to 1970-72, the East had a 42-percent drop in harvested tonnage. California's production went up four times to more than 4 million tons. Midwest tonnage climbed 50 percent.

Climate control. California owes much of its success to a climate that's paved the way for mechanical harvesting. Because of the dryness in producing areas, crops are irrigated and soil conditions can usually be controlled to just about optimal levels for harvesting. As a result, high-yielding varieties that respond to once-over mechanical harvesting have been developed that take full advantage of these conditions.

California thus has substantially higher yields and lower production costs than other parts of the country. And with lower raw product costs for tomato canners, the processing industry has flourished.

Today, just about all of California's tomatoes grown for processing are under irrigation and mechanically harvested. The Midwest and the East, on the other hand, are more dependent on hand harvesting due to wet field conditions. Last year, about 30 percent of the Midwest's crop was machine harvested, and the relatively few mechanical harvesters in the East were frequently slowed or delayed by wet fields.

To each his own. Each of these three major processing regions has its specialties.

California is in a better position to produce high-concentrated tomato products because of its advantage in lower raw product costs. Nearly 60 percent of its processing crop goes into such products as sauce, puree, and paste, which take up to 5½ pounds of farm weight to make a pound of finished product. Well over 90 percent of the Nation's tomato paste and tomato sauce comes from California.

Concentrate on low-concentrates. The East and Midwest put close to half their production in low-concentrated tomato juice and canned tomatoes. These products take about 1½ pounds of farm weight tomatoes to make a pound of finished product. High-concentrated products account for less than 10 percent of their production.

In the East, most of the plants are involved in canning whole tomatoes. Very few produce tomato paste. Plants in the Midwest tend to pack whole tomatoes and juice in combination.

California canners primarily put out a whole line, with emphasis on whole tomatoes and highly concentrated products. Nearly 75 percent of California's plants pack four or more distinct products, in sharp contrast to the East where only 6 percent packed more than three tomato products and the Midwest where 15 percent packed more than three products. More than half of California's tomato canneries also can fruits and berries, with tomatoes and peaches a particularly common combination.

Planning for canning. Nearly all canning tomatoes are grown under contract with processors. In general, these contracts set acreage, varieties, damaged fruit tolerances, and price per ton. There is little incentive for canners to go into production, due to the fact that investment costs are high and the fact that canners are able to acquire an adequate supply of good quality tomatoes through contracting.

Contracting for the new crop usually begins shortly after the old crop has been packed.

In California formal contracts are not often signed this early. Canners attempt only to line up required tonnage for the coming year through verbal gentlemen's agreements regarding acreage and varieties.

Later, sometime from November to February, one of the major canners and recognized price leader will announce a contract price and begin signing formal contracts with grow-

ers at this contract price.

This signals the onset of extensive contracting activity by all canners. In most years, all contracts are signed at the announced price of the canner acting in the role of price leader.

These contracts usually specify the variety and strain and sometimes require that seeds and plants be purchased from the canner. Canners exercise little supervision over growing practices, other than close supervision of planting and harvesting dates to promote plant scheduling.

In the years ahead, the general trend looks like California will continue to increase its share of the tomato processing industry.

But certain changes could upset

Tomato Turnout

There's about a 3 to 1 chance that the processed tomato product you open comes from California.

More than 4 million tons of canning tomatoes, or 75 percent of all U.S. production, were grown in the Golden State last year from the Mexican border to within 100 miles of Oregon. Although most of the production is concentrated in the Sacramento and San Joaquin Valleys, considerable expansion both north and south has lengthened the processing season in the State.

The Midwest ranks second to California as a tomato producer, putting out close to 15 percent of total U.S. production. Most of its canning tomatoes are grown in northeastern Ohio and east-central Indiana.

Ohio, with more than half the canning acreage in the Midwest, is the only midwestern State to increase its acreage since the late forties, and during this time it has replaced Indiana as the leading producer.

The East produces about 6 percent of the Nation's tomatoes for processing. Major production areas are along the Atlantic Coast in southern New Jersey and the Delmarva Peninsula; southern Pennsylvania; northern Maryland; and New York State near the shores of Lake Erie and Lake Ontario.

this trend: For one, Federal and State pollution controls could be imposed that would alter plant cost structures and locational advantages. Tomato canning generates large amounts of both solid and liquid wastes. Then, too, bulk holding and transportation technology, or changes in freight differentials between bulk and canned products could lead to a situation where existing plants in the East and Midwest would become the final fabricators of raw products grown and partially processed in California. To some extent, California processors are already shipping partially processed tomatoes to Eastern plants for final processing.

[Based on manuscript, *Economic Trends in the Processing Tomato Industry*, by G. A. King, University of California, E. V. Jesse, Commodity Economics Division, and B. C. French, University of California, to be published by the University of California at Davis in cooperation with ERS.]

Consumer Spending On Dairy Foods Tops \$17 Billion

Consumers spent \$17.6 billion at the marketplace last year for dairy products—up 5 percent from 1971.

Most of this increase in expenditures was to buy more products—retail dairy prices increased only about 1½ percent.

Of the total spent on dairy products, \$7.1 billion was the farm value, and \$10.5 billion represented the marketing bill. Both the farm value and marketing margin increased about 5 percent from 1971.

Dairy products accounted for 14 percent of consumer expenditures for all foods in 1972. About 70 percent of this was for dairy products used at home. Away-from-home eating of dairy products cost consumers \$5.3 billion in 1972, up from \$4.6 billion the year earlier.

The average wage earner had to work 69 minutes a week during 1972 to pay for his dairy products compared to 72 minutes a year earlier.

[Based on *Dairy Situation*, DS-347, September 1973.]

Washington Apples: More in Store for the Processor

To Washington apple growers, VIP's may come to mean "very important processors."

Fresh market sales now form the mainstay of the State's apple industry, absorbing about 80 percent of the annual crop—versus only 20 percent that's processed into apple juice, sauce, and dried apple products.

But the industry has reached the threshold of continued high production and potentially low prices. To ease this situation, growers will turn increasingly to the processing market, a joint study by ERS and Washington State University indicates.

Part of the concern over heavy production and depressed prices lies with the large number of newly planted trees. When they mature some 5 to 6 years from now, these saplings stand to raise total output as much as 60 percent.

Washington's apple industry has no set policy governing how much of the crop goes to the fresh market and how much for processing. But in view of its vast production potential, the industry may wish to consider some alternatives that would yield optimal returns in years of bumper crops.

Marketing allocation schemes are often cited as means of lifting net returns. For example, one study claimed that growers could realize higher returns by selling their apples late in the season.

Another study concluded that producers could up their earnings by selling more of their crop to processors. This is because the processing market is far less sensitive to changes in supply than the fresh market. Thus, when a sizable share of apples is diverted for processing, the rise in fresh market prices is greater than the drop in processing prices.

Up until now, however, studies have treated only the short-run advantages of various allocation programs. This is why researchers at Washington State University developed a model to estimate prices and

returns over the next 10 years under two market allocation policies.

The first assumes a continuation of the present rate of allocation—80 percent to the fresh market and 20 percent to processors.

The second is an alternative marketing strategy that divides the annual harvest between the two markets in a way that maximizes yearly grower returns. Under this scheme, far more apples are diverted to processors.

The model, which allowed for yield variability and effects of weather, showed that at the present rate of allocation (policy 1) producer returns would average 3.3 to 4.6 cents per pound over the next 10 years.

Growers would react to these depressed prices by reducing the State's apple trees to around 8.3 million in 1981—down from last year's 11 million.

Even with fewer trees, total apple

production would rise to over 1,800 million pounds by 1978 as young trees now in the ground reach bearing age. But by 1980, higher productivity would be offset by the smaller tree count, and total output would stabilize near 1,800 million pounds the following year.

Under the alternative policy, the model indicated grower prices would range from 4.2 to 5.2 cents per pound. The favorable prices would generate a slight gain in the tree population to 11.5 million by 1981. And production would surge to 2,200 million pounds.

Grower prices in the processing market would drift below those under the current allocation policy due to the larger volume.

But with more apples sold for processing, the industry could maintain higher prices in the fresh market that would more than offset low returns in the processing market.

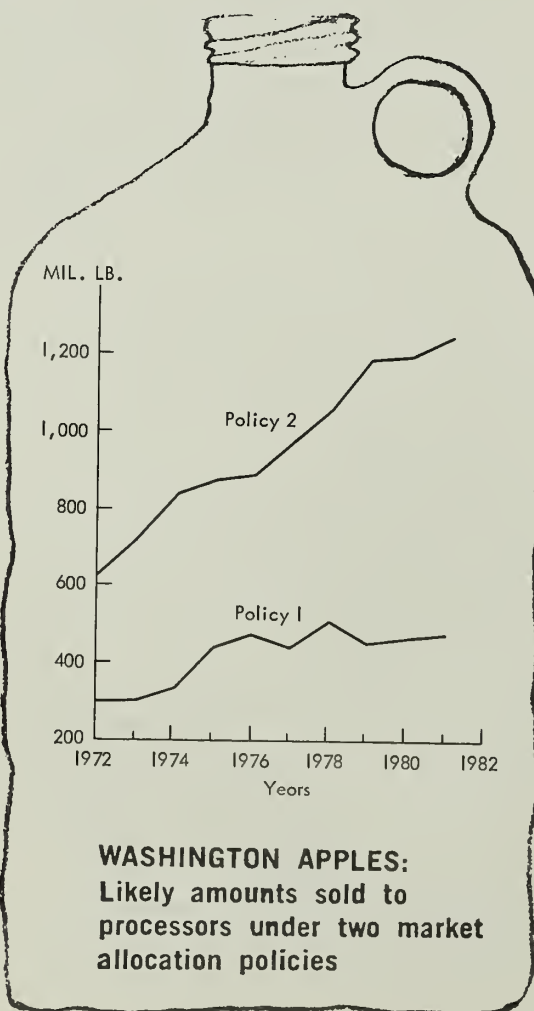
The alternative policy, which sustains a high level of production at respectable prices, therefore appears to be the better choice. But there are other considerations.

For one thing, authority to specify how much of the crop to sell to processors must come under a Federal or State marketing order. Use of such a marketing scheme by Washington's apple industry is currently forbidden by law.

Too, a small committee elected by the State's apple growers would determine the allocation rate each year. Independent growers and producer cooperatives would thus forfeit certain decisionmaking powers.

And it could happen that the easiest way to allocate more apples for processing would be to sell the output of entire orchards. This in turn would require Statewide pooling of returns so that all growers in all areas of the State get their fair share.

There's also the question of what would happen if Washington sells a smaller portion of its crop at higher prices on the fresh market.



Growers in competing regions would also receive higher fresh market prices due to decreased supplies. The competitors might then shift more apples into fresh market channels, possibly eroding Washington's dominance of that market.

Finally, it's doubtful that the industry will adhere strictly to the 80-20 percent allocation rate specified in the model's policy 1. As production mounts over the coming decade and prices threaten to nose-dive, the processing market should prove an increasingly important outlet—with or without a formal allocation scheme.

[Based on manuscript entitled Supply Response and Two Alternative Marketing Strategies for the Washington Apple Industry by J. L. Baritelle, Commodity Economics Division, and D. W. Price, Washington State University.]

Lettuce Is Second In Popularity and Value Among Fresh Vegetables

Next to tomatoes, lettuce is probably the most popular fresh vegetable on U.S. menus.

Unlike most other fresh vegetables, consumption of lettuce per person has increased slowly but steadily over the past 50 years. Consumption came to 22.2 pounds per capita in 1972, up from 19.8 pounds a decade earlier.

In addition to its popularity, lettuce is one of the most important fresh vegetables from a dollar value standpoint. The U.S. farm value of \$277 million was second only to tomatoes in 1972. For the past 10 years the value of the U.S. lettuce crop represented slightly over a fifth of all vegetables grown for the fresh market.

While lettuce is grown commercially in 17 States (including Hawaii), California dominates the industry. In 1972 the Golden State supplied 72 percent of the Nation's total output of 48 million hundred-weight. Most of California's lettuce is of the iceberg type.

As the popularity of lettuce inched

up the past 10 years, so did the retail price. The U.S. retail price for iceberg lettuce averaged about 34 cents per head in 1972, up 42 percent from 9 years earlier.

Much of the increased cost of lettuce is attributed to a higher wholesale and retail margin, which increased 59 percent between 1963 and 1972.

Also contributing were higher transportation charges and harvesting-packing costs. Rail transportation costs from California to Chicago and New York City went up 41 percent, while harvesting and packing costs in California rose from 90 cents per carton in 1963 to \$1.25 in 1972—a 39-percent increase. Returns to California growers rose about the same—from 83 cents to \$1.06 per carton.

Taking the 1963-72 period, the wholesalers' and retailers' share of the retail value of lettuce increased slightly. The growers' share, though highly variable, fell slightly. The wholesale and retail margin aver-

aged 52 percent of the retail value; rail transportation costs, 17 percent; harvesting and packing costs, 16 percent; and grower returns, 15 percent.

[Based on "Lettuce Prices, Costs, and Returns," by Alfred J. Burns and Joseph C. Podany, Commodity Economics Division, an article in *Vegetable Situation*, TVS-189, October 1973.]

Tighter Pollution Rules To Hit Cotton Ginners

More and more processors of agricultural products are feeling the clampdown on environmental pollution, and cotton ginners are no exception.

The problem facing the ginners is finding economical ways of disposing of such waste products as lint, fine dust, leaf, and other trash.

Traditionally the lint and dust have been allowed to escape into the atmosphere, whereas the heavy foreign matter has been burned in open pits. These practices will no longer be tolerated under anticipated pollution regulations.

Equipment is available to effectively control air pollution by the some 3,900 active gins in the U.S. A number of plants have already installed the apparatus.

ERS has estimated that if all gins were to comply with the strictest pollution controls now required of some plants, the total investment cost to ginners would exceed \$100 million. Individual plants would have to spend from nearly \$24,000 to over \$53,000, depending on plant size.

Annual cost to the industry would amount to more than \$26 million, including depreciation, interest, taxes, insurance, repairs, extra energy, and hauling expenses. On the average, this works out to \$2.60 per bale of ginned cotton assuming a cotton crop of 10 million bales.

[Based on manuscript *The Economic Impact of Air Pollution Control on the Cotton Ginning Industry*, by Zolon M. Looney and Charles A. Wilmot, Commodity Economics Division, and Oliver L. McCaskill, Agricultural Research Service.]

What Is Open Dating?

Did you ever see a date on a food package that puzzled you? Or letters and numbers that you didn't understand at all?

If so, you're not alone. Recent studies show that many consumers are puzzled by food product dates and what they mean.

A pamphlet has been published by USDA's Economic Research Service that will answer many of your questions. Entitled "What is Open Dating?," the brochure explains the meaning of the pull date, quality assurance or freshness date, pack date, and expiration date.

As a result of open dating experiments, many food processors are now putting open dates on food, and nearly all major retail food chains have an open dating program for perishable and semi-perishable products.

Free copies of this brochure may be obtained by writing to The Farm Index, ERS, U.S. Department of Agriculture, Room 1459, Washington, D.C. 20250.

The future could be bright for continued expansion of U.S. farm exports, according to the latest reading by ERS analysts.

However, exports can be expected to fall from their current peaks before resuming an upward course.

Total U.S. agricultural exports to 1985 have been projected for two sets of conditions.

Though both sets assume steady long-term growth in world demand for livestock feeds, the more conservative projection assumes importing countries will pursue self-sufficiency policies and that high prices will constrain import demand. Under these conditions the volume of our agricultural exports can be expected to rise 46 percent from the base year of 1970, but only 7 percent from current high levels.

The higher projection for 1985 shows a 25-percent increase in exports over last fiscal year's and 70

percent above 1970's. It assumes animal production will be encouraged in importing countries and that demand for feed grains and high-protein meal will remain strong. The U.S.S.R. would permit increased livestock consumption even if it meant importing significant amounts of grain. China would import to improve diets of city people. The enlarged European Community, under inducements, would set lower target prices. In the developing countries, accelerated income growth would stimulate food consumption and would strengthen the demand for feed grains.

Under the analysts' higher projection, for example, U.S. exports of feed grains could increase to 56 million tons, or 20 million more than what is expected this year. Soybean exports could jump to 31 million tons, twice the level of current sales and 19 million more than in 1970. Even under the higher projection,

the increase in wheat would be small.

Growth in volume has explained most of the increase in the value of U.S. agricultural exports during the last 2 decades. In the low projection, however, half of the increase is the result of rising prices. This study assumes 3 percent annual inflation for the U.S. and nearly 4 percent for the rest of the world. The dollar devaluations of December 1971 and February 1973 are allowed for. Inflation beyond these rates, or further dollar depreciation, would call for a reassessment.

Import demand for U.S. grains looks especially promising in Japan. Even under the lower projection, Japan is expected to take 28 million metric tons—nearly three times the imports in 1970. Taiwan and Korea, both with rapidly expanding economies, would also demand healthy amounts of grain.

Crucial markets Our actual exports

Farm Trade In The Eighties--Emerging Patterns



12 years from now will depend in large part on developments in the enlarged European Community (EC-9), Eastern Europe, and the U.S.S.R. If these markets approach self-sufficiency in meat and grains, we can expect under the lower projection to export 31 million tons of feed grains to all destinations in 1985.

This would be 10 million more than in base 1970 but below the 36 million reached in fiscal 1973.

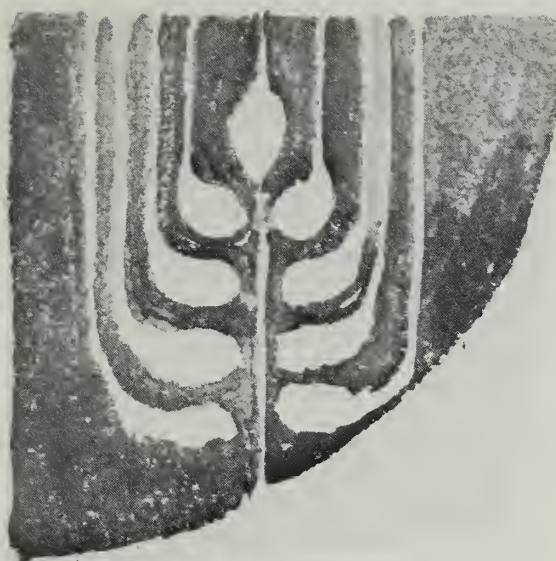
The potential for bigger U.S. soybean shipments is considerable even if Europe and the U.S.S.R. attain self-sufficiency in meat and grains. Soybean exports in this case are projected at nearly 26 million tons in 1985—two and a half times the 1970 level.

World consumption of meat will continue on its long-term uptrend, as will meat prices. The bulk of the supplies will continue to come from Australia, New Zealand, and Argentina. U.S. imports will keep going up, but the net imports of the EC will decline as a result of stimulated production in the new member countries. Japan's consumption and imports are likely to rise rapidly.

For dairy products, projections indicate ample supplies. However, there will probably be significant changes in trade patterns. The enlarged EC will have net exports of over 2 million tons in milk equivalent, and will close off the United Kingdom as a market for Australia and New Zealand.

TWO ALTERNATIVES FOR WORLD GRAIN SITUATION. Under alternative one, global capacity for grain output will mount faster than usage on the assumption importing countries strive to become self-sufficient (Alternative I). The likely result could be a rebuilding of grain stocks, or pressure on prices, or programs to restrict production in the major grain exporting countries—or some combination of these.

Reflecting buoyant demand for livestock products, especially in the developed and Communist countries, total coarse grain exports will rise more steeply than wheat exports and



will be larger than wheat exports.

Developed and Communist countries will produce and consume most of the wheat and coarse grains. The developed countries will continue to supply the less developed countries (LDC's) with grain. However, the developed importers will buy more coarse grain whereas the LDC's will import more wheat. This is because the LDC's need to use their limited foreign exchange for importing food grains.

Projected production and trade of the LDC's permit an increase in per capita grain use over 1970, but any sizable increase would probably come from larger domestic production rather than from larger imports. In some LDC's where wheat production is relatively unimportant, such as Korea and Taiwan, there could be significant expansion of wheat imports.

Under the lower projection alternative, all of Europe will tend toward self-sufficiency in grain production, and by 1985, the area should be practically self-sufficient in wheat. Europe's coarse grain imports will fall except in the non-EC countries of Western Europe where net imports may total about 6 million tons.

Worldwide, Japan will remain the largest single market for wheat and coarse grains.

And in the Soviet Union and the People's Republic of China, larger imports are possible. However, this would run contrary to policies of trying to minimize grain

imports and to maximize grain production.

But under the higher projection alternative, U.S.S.R. and Eastern Europe would follow a policy to increase livestock consumption at a faster rate of growth than planned under Alternative I, even if it meant importing grain. This assumes a high overall level of trade with the western world.

The People's Republic of China would become more trade oriented and import more grain to improve city diets.

The enlarged European Community would find it advantageous to set price targets somewhat below those specified under Alternative I, say, because the high cost of the Common Agricultural Policy is becoming politically unacceptable.

The livestock economies, particularly poultry, in the developing world would grow faster than projected either in countries with large revenues from petroleum exports or in countries with faster economic growth than projected. This would accelerate the demand for feed grains.

All the projections would need to be adjusted if crop yields and production around the world could increase through major breakthroughs in plant science, or even continued steady progress in the work of plant breeders. The result would be changes in production costs and in the nutritional value of cereals.

WORLD MEAT CONSUMPTION is expected to grow by 3 percent a year to 1985, reaching 163 million metric tons. Beef will account for 59 million tons, pork 54 million, poultry 26, mutton 10, and other types 14. Pork use is seen increasing in the same proportion as total meat, at 3 percent annually, while beef increases by 2.8 percent. Poultry will set the pace with 3.8 percent. Mutton will lag.

Prime consumer. As the world's largest meat consuming region, the U.S. will continue to account for a fifth of all the world's meat. U.S.

meat consumption is expected to rise 2 percent annually during 1970-85 to 31 millions tons. Beef, leading the way, will grow by an estimated 2.3 percent a year to reach 15 million tons in 1985. And, on a per capita basis, the U.S. will remain among the world's biggest meat eaters—Australia, New Zealand and Argentina—with a per capita consumption of 287 pounds a year.

U.S. meat production will about keep up with consumption, but net imports will climb to a million tons by 1985—up 25 percent from 1970.

The European Community (EC-9), largest meat consuming area after the U.S., will consume nearly a sixth of the world's meat in 1985, about the same as in 1970. Consumption in the original EC-6 is projected to rise by 2.8 percent and in the three new member countries, by 1.8 percent annually. Meat production in the original EC-6 has been expanding, though not quite as fast as the demand. The outlook, however, is for the production-consumption gap to narrow.

Meat exports by Denmark and Ireland to the rest of the EC will make substantial gains. With climbing meat production, the United Kingdom will rely less on imports and its needs will probably be taken care of by the other EC members. The EC-9, overall, will reduce its dependence on the rest of the world for meat in general and for beef in particular.

Elsewhere in West Europe the

growth in meat use will outstrip the advances in output. Imports are expected to more than double by 1985 to a half million tons.

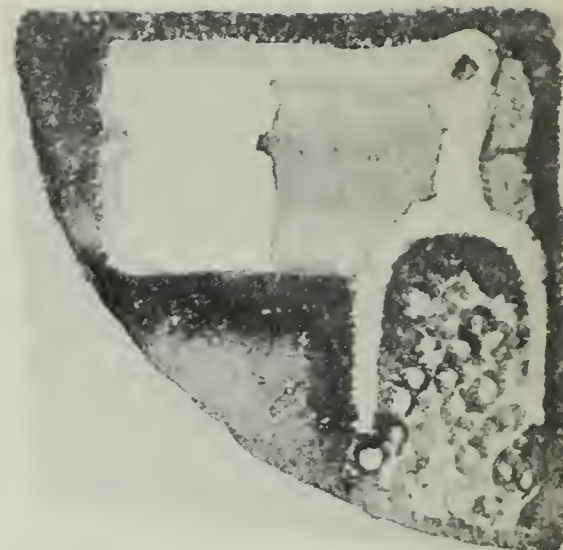
East Europe is likely to remain a net meat exporter in the next 12 years. Net exports of beef, estimated at .2 million tons in 1985, will reinforce a similar quantity of net exports of other meats.

In Japan the outlook holds dramatic leaps in meat usage. Total consumption is seen expanding by 7.4 percent a year, and by 1985 will be nearly triple the level of 15 years earlier. On a per capita basis, meat use is placed at 92 pounds in 1985, compared with 37 pounds in 1970. While production of pork and poultry will swell in line with demand, beef and mutton will not. Meat imports will likely triple during 1970-85 to .7 million tons.

The Soviet Union and the People's Republic of China—with 10 and 15 percent, respectively, of 1985 world meat consumption—are expected to continue to pursue their policies of self-sufficiency. Meat production in the Soviet Union is diversified, whereas the People's Republic concentrates on pork and poultry.

Argentine picture murky. Turning to the major meat exporters, Argentina is likely to show only modest growth in beef exports to 1985. The U.S., for one, is an expanding market for Argentine canned and cooked-frozen beef. But the demand picture is not especially promising in Argentina's chief market—the EC-9—where a variable levy system impedes meat imports.

In Oceania, a strong upsurge is on the horizon for meat production, mainly beef. Australia has been developing water supplies in its dry hinterland, and cattle ranching is being intensified. Australia's per capita meat consumption will probably remain stable at its present world-record level. Thus, the anticipated production increases will pave the way for large additional exports by 1985, possibly three times more than is being shipped at present.



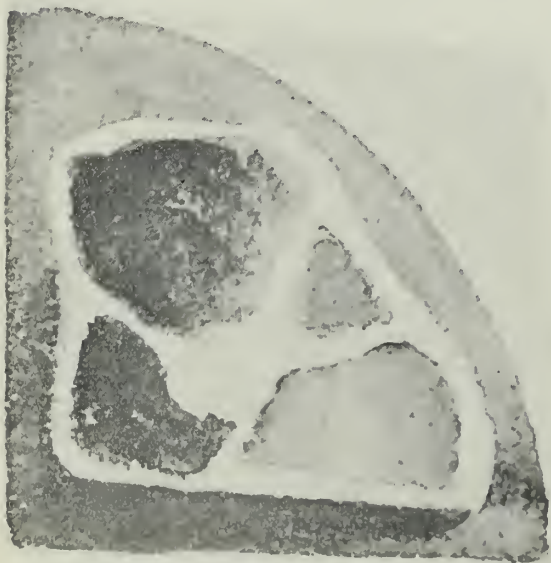
DEMAND FOR HIGH-PROTEIN FEEDS will be lifted by further growth in demand for livestock products. With high grain prices in the EC, a major feed user, feed manufacturers there will be encouraged to use grain substitutes. This in turn will spur usage of protein supplements.

Fishmeal production will probably continue to expand but at a rate considerably slower than the increase in demand for protein meals. Soybean exports will benefit.

Soybeans. The foreign import demand for high protein feeds has been building at the equivalent rate of about 65 million bushels of soybeans a year—a trend that will carry over into the 1980's, but with added strength by imports of the U.S.S.R. and the People's Republic of China. Not all the growth in soybean demand will be supplied by U.S. exports, since other protein meal suppliers—such as Brazil—are projected to increase their exports. Probably most of the larger meal demand will be exported in the form of beans.

Petroproteins will be available, although their use will be limited due to high price. The situation could be drastically altered, however, in the event of a technological breakthrough or relative price stability in crude petroleum prices.

Production of high protein (high lysine) grains will continue to be limited because traditional varieties will maintain their yield advantage. Synthetic amino acids, especially



methionine, will be produced and available at such a price that it will be economical to supplement—but probably not replace—traditional protein sources.

THE WORLD DAIRY SITUATION features ample supplies to 1985, primarily due to substantial production increases in the EC-9 and further decline in demand for milkfat in Europe. The accession of the three new members aggravates both the supply and demand situation in the EC-9 since price hikes at all levels within the three stimulate production and retard consumption.

In addition, milk output is being forced up by EC efforts to spur beef production, inasmuch as much of the beef comes from dairy cattle. The dairy/beef linkage will weaken by 1985, yet the strong demand for beef and further growth in milk yields may lead to chronic milk surpluses. An export availability of over 2 million tons of milk equivalent is projected for the EC-9 in 1985.

New Zealand will continue as the leading exporter of butter, even though exports will dip due to the loss of the U.K. market. Larger cheese shipments will partially offset the drop in butter trade.

Australia withdraws. In general the foreign market for butter will shrink in the 1980's, and this will encourage a shift out of dairy production in Western Europe and Australia. Australia, now an important butter exporter, will probably with-

draw from the export market but will continue to export some cheese.

The Soviet Union will remain a significant exporter of dairy products. Both cow numbers and milk yields will increase, but the rate will trail that of the 1960's.

In the U.S., production and consumption of dairy products will trend up. Supply and demand, however, will be essentially in balance.

[Based on a paper by Anthony S. Rojko, Foreign Demand and Competition Division, entitled "Future Prospects for Agricultural Exports," presented at Midwest Agricultural Outlook Conference, Purdue University, Aug. 15-16, 1973. The projections represent the combined efforts of several persons in the Commodities Program Area, principally Donald W. Regier, livestock; John E. Hutchison, grains; Thomas Twomey, dairy products; and Arthur Coffing, oilseeds.]

Outlook Brightens For World Rice Supplies

The world rice crop for 1973/74 promises to be one of the biggest ever. In fact, experts claim it may even break the 1971/72 record of nearly 300 million metric tons.

Record or no record, the crop will be widely welcomed throughout Asia, where preharvest supplies ebbed to barebone levels following a disastrous crop in 1972/73.

Except for severe flooding in Pakistan, normal monsoon rains have prevailed this year in most of Asia, which supplies around 90 percent of the world's rice. As a result, crops are projected to recover to at least the 1971 record levels in most major producing countries. And record rice harvests are expected in the People's Republic of China, Thailand, Bangladesh, and the Philippines.

World rice supplies in 1974 should prove adequate to meet rising needs without further drawdowns of currently low stocks. Nevertheless, strong import demand is expected to exert pressures on supplies well into 1974.

According to September estimates, Thailand anticipates a bumper crop of about 14 million tons (rough equivalent) but will prob-

ably export only 1.2 million tons in 1974. As of January 1, 1973, stocks of Thai rice were only around half their year-earlier level. And with population rising at 3.5 percent a year, limits on Thailand's rice exports will likely remain in effect.

Burma's 1973/74 rice crop is seen at around 8 million tons, up from a year ago. Burmese exports will amount to only around 300,000 tons. South Vietnam's harvest is estimated 10 percent larger though insufficient for domestic needs.

Normally a rice exporter, the Khmer Republic (Cambodia) will probably have to import 200,000 tons, since political strife has precluded any recovery from last year's poor crop.

Meantime, the Philippines' rice harvest is expected to surge 20 percent for a record 5.5 million tons. South Korea's rice crop—as well as its rice imports—will post slight gains.

India's rice harvest may total a bountiful 65 million tons, but 1974 imports will continue heavy since rice stocks were drained by more than a third last year. Production in Bangladesh will probably crack the 1969 record, but imports will remain heavy.

Paddies in the People's Republic of China, world's top rice producer, may yield a record 103 million tons. Per capita rice use is expected to pick up somewhat in 1974, but the Chinese may still export about 800,000 tons.

Improved yields will probably boost Japan's output despite limitations imposed by the government's rice acreage diversion program.

Bountiful crops are also in prospect outside the Asian sphere. Production in Latin America looks to be up a million metric tons over last year.

Europeans are harvesting slightly bigger crops this year. And with export embargoes lifted in the European Community, Italy could export roughly 400,000 tons.

[Based on the *Rice Situation*, RS-22, September 1973.]



U.S. Farm Exports To East Europe, U.S.S.R. Show Fourfold Increase

The East European area and the U.S.S.R. emerged as major buyers of U.S. farm products in fiscal 1973 as exports soared to \$1.4 billion from only \$353 million the year before. About 11 percent of all U.S. farm product shipments went to this region—up from 4.4 percent in 1971/72.

The record high exports were mainly due to large shipments of grains, oilseeds, oilseed products, and cattle hides.

Primarily because of increased agricultural exports, the overall trade balance between the U.S. and Eastern Europe (including the U.S.S.R.) widened sharply. Total U.S. exports to the area—\$1.8 billion in 1972/73—far exceeded the \$545 million in imports—a surplus of \$1.2 billion compared with only \$258 million in 1971/72.

The agricultural trade balance came to nearly \$1.3 billion, with U.S.

farm exports totaling \$1,407 million and imports, \$130 million. In 1971/72 the agricultural trade surplus was \$252 million.

[Based on article by Thomas A. Warden, Foreign Demand and Competition Division, appearing in *Foreign Agricultural Trade of the United States*, September 1973.]

Low Stocks, High Prices Spur U.S. Tobacco Imports

American smokers probably won't detect it, but they're likely to be puffing more foreign tobacco in months ahead.

After falling off some 17 million pounds during 1972/73, imports of tobacco leaf for making U.S. cigarettes are on the rebound. Prodded by reduced supplies and big price tags on domestic tobaccos, cigarette leaf imports should easily top last season's 177 million pounds.

Meantime, imports of all unmanufactured tobacco for domestic use reached 151 million pounds during January-July. For the entire year,

imports will probably break 1972's record of 248 million pounds.

The world's largest producer and exporter of tobacco, the U.S. is also a major importer, ranking third behind the United Kingdom and West Germany. Turkey and Greece are the major suppliers of our imported cigarette leaf, while the Philippines is our prime source of low-value tobacco scrap.

Last fiscal year, imports of cigarette leaf were valued at 59¢ per pound, excluding ocean freight and duties. Manufacturers pay duties averaging 11½¢ per pound on most cigarette leaf imports but still realize some savings over higher-priced domestic varieties. Scrap tobacco is generally dutiable at just over 16¢ per pound.

Foreign tobaccos are blended into American products in sharply different proportions. In 1972, cigarettes contained about 16 percent imported tobacco (farm-sales weight) versus around 60 percent in cigars.

[Based on *Tobacco Situation*, TS-145, September 1973.]

Recent Publications

Harvesting, Storing, and Packing Apples for the Fresh Market: Regional Practices and Costs. Joseph C. Podany, Robert W. Bohall, and Joan Pearrow, Commodity Economics Division. MRR-1009.

This study was designed to obtain information on regional marketing practices, technology, and costs of harvesting, storing, and packing fresh apples.

Families in the Expanded Food and Nutrition Education Program: Comparison of Food Stamp and Food Distribution Program Participants and Nonparticipants. J. Gerald Feaster and Garey B. Perkins, National Economic Analysis Division. AER-246.

This report is based on a sample of families in the Expanded Food

Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1459-So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by () may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.*

and Nutrition Education Program (EFNEP) of USDA's Extension Service. The report compares food consumption and socioeconomic profiles of families participating and not participating in the USDA food stamp or food distribution programs.

Also, regional comparisons of the profiles are made and factors associated with income and food expenditures identified.

Costs of Building and Operating Rice Drying and Storage Facilities in the South. Shelby H. Holder, Jr., Joseph L. Ghetti, and Zolon M. Looney, Commodity Economics Division, stationed at Mississippi State University. MRR-1011.

This study is part of a research program designed to provide useful information and analyses to policy-makers and the rice industry. Specifically, it provides information on investment requirements and operating costs for commercial rice dryers of different sizes operating at various levels of capacity.

Economic Trends

Item	Unit or Base Period	1967	1972			1973	
			Year	August	June	July	August
Prices:							
Prices received by farmers	1967=100	—	126	128	172	172	207
Crops	1967=100	—	115	117	170	164	195
Livestock and products	1967=100	—	134	135	173	179	217
Prices paid, interest, taxes and wage rates	1967=100	—	127	127	146	146	151
Family living items	1967=100	—	124	125	138	138	141
Production items	1967=100	—	122	122	149	148	157
Ratio ¹	1967=100	—	100	101	118	118	137
Wholesale prices, all commodities	1967=100	—	119.1	119.9	136.7	134.9	142.7
Industrial commodities	1967=100	—	117.9	118.5	126.9	126.9	127.4
Farm products	1967=100	—	125.0	128.2	182.3	173.3	213.3
Processed foods and feeds	1967=100	—	120.8	121.0	151.8	146.5	166.2
Consumer price index, all items	1967=100	—	125.3	125.7	132.4	132.7	135.1
Food	1967=100	—	123.5	124.6	139.8	140.9	149.4
Farm Food Market Basket: ²							
Retail cost	1967=100	—	121.3	122.6	140.4	141.5	153.0
Farm value	1967=100	—	124.4	126.1	163.9	166.7	200.2
Farm-retail spread	1967=100	—	119.3	120.4	125.5	125.5	123.1
Farmers' share of retail cost	Percent	—	40	40	45	46	51
Farm Income: ³							
Volume of farm marketings	1967=100	—	112	108	90	104	101
Cash receipts from farm marketings	Million dollars	42,693	60,671	4,856	5,516	6,228	7,400
Crops	Million dollars	18,434	25,075	1,913	1,947	2,794	3,100
Livestock and products	Million dollars	24,259	35,596	2,943	3,570	3,434	4,300
Realized gross income ⁴	Billion dollars	49.0	68.9	—	82.5	—	—
Farm production expenses ⁴	Billion dollars	34.8	49.2	—	58.0	—	—
Realized net income ⁴	Billion dollars	14.2	19.7	—	24.5	—	—
Agricultural Trade:							
Agricultural exports	Million dollars	—	9,404	679	1,376	1,218	1,470
Agricultural imports	Million dollars	—	6,459	564	664	635	720
Land Values:							
Average value per acre	Dollars	⁶ 168	⁷ 219	—	—	—	⁸ 247
Total value of farm real estate	Billion dollars	⁶ 181.9	⁷ 230.5	—	—	—	⁸ 258.7
Gross National Product: ⁴							
Consumption	Billion dollars	793.9	1,155.2	—	1,272.0	—	—
Investment	Billion dollars	492.1	726.5	—	795.6	—	—
Government expenditures	Billion dollars	116.6	178.3	—	198.2	—	—
Net exports	Billion dollars	180.1	255.0	—	275.3	—	—
Income and Spending: ⁵							
Personal income, annual rate	Billion dollars	629.3	939.2	944.4	1,026.6	1,035.6	1,047.3
Total retail sales, monthly rate	Million dollars	26,151	37,365	37,969	41,179	42,778	42,231
Retail sales of food group, monthly rate	Million dollars	5,759	7,918	8,039	8,598	9,128	8,891
Employment and Wages: ⁵							
Total civilian employment	Millions	74.4	⁹ 81.7	⁹ 82.1	⁹ 84.7	⁹ 84.6	⁹ 84.4
Agricultural	Millions	3.8	⁹ 3.5	⁹ 3.6	⁹ 3.4	⁹ 3.5	⁹ 3.4
Rate of unemployment	Percent	3.8	5.6	5.6	4.8	4.7	4.8
Workweek in manufacturing	Hours	40.6	40.6	40.6	40.6	40.7	40.5
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	3.81	3.80	4.04	4.06	4.06
Industrial Production: ⁵							
	1967 = 100	—	115	116	126	127	127
Manufacturers' Shipments and Inventories: ⁵							
Total shipments, monthly rate	Million dollars	46,449	62,466	63,686	71,616	73,248	72,512
Total inventories, book value end of month	Million dollars	84,655	107,719	105,822	113,025	113,910	114,873
Total new orders, monthly rate	Million dollars	46,763	63,514	64,809	75,361	75,145	75,556

¹ Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. ² Average annual quantities of farm food products purchased by urban wage-earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. ³ Annual and quarterly data are on 50-State basis. ⁴ Annual rates seasonally adjusted second quarter. ⁵ Seasonally adjusted. ⁶ As of March 1, 1967. ⁷ As of March 1, 1972. ⁸ As of March 1, 1973. ⁹ Beginning January 1972 data not strictly comparable with prior data because of adjustment to 1970 Census data.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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